## **Methods of document object**

We can access and change the contents of document by its methods.

The important methods of document object are as follows:

|  |  |
| --- | --- |
| **Method** | **Description** |
| write("string") | writes the given string on the doucment. |
| writeln("string") | writes the given string on the doucment with  newline character at the end. |
| getElementById() | returns the element having the given id value. |
| getElementsByName() | returns all the elements having the given name value. |
| getElementsByTagName() | returns all the elements having the given tag name. |
| getElementsByClassName() | returns all the elements having the given class name. |

### **Accessing field value by document object**

In this example, we are going to get the value of input text by user. Here, we are using **document.form1.name.value** to get the value of name field.

Here, **document** is the root element that represents the html document.

**form1** is the name of the form.

**name** is the attribute name of the input text.

**value** is the property, that returns the value of the input text.

**<script** type="text/javascript"**>**

function printvalue(){

var name=document.form1.name.value;

alert("Welcome: "+name);

}

**</script>**

**<form** name="form1"**>**

Enter Name:**<input** type="text" name="name"**/>**

**<input** type="button" onclick="printvalue()" value="print name"**/>**

**</form>**

document.getElementById() method

The **document.getElementById()** method returns the element of specified id.

we have used **document.form1.name.value** to get the value of the input value. Instead of this, we can use document.getElementById() method to get value of the input text. But we need to define id for the input field.

**<script** type="text/javascript"**>**

function getcube(){

var number=document.getElementById("number").value;

alert(number\*number\*number);

}

**</script>**

**<form>**

Enter No:**<input** type="text" id="number" name="number"**/><br/>**

**<input** type="button" value="cube" onclick="getcube()"**/>**

**</form>**

document.getElementsByName() method

The **document.getElementsByName()** method returns all the element of specified name.

The syntax of the getElementsByName() method is given below:

document.getElementsByName("name")

### **Example of document.getElementsByName() method**

we going to count total number of genders. Here, we are using getElementsByName() method to get all the genders.

**<script** type="text/javascript"**>**

function totalelements()

{

var allgenders=document.getElementsByName("gender");

alert("Total Genders:"+allgenders.length);

}

**</script>**

**<form>**

Male:**<input** type="radio" name="gender" value="male"**>**

Female:**<input** type="radio" name="gender" value="female"**>**

**<input** type="button" onclick="totalelements()" value="Total Genders"**>**

**</form>**

document.getElementsByTagName() method

The **document.getElementsByTagName()** method returns all the element of specified tag name.

The syntax of the getElementsByTagName() method is given below:

document.getElementsByTagName("name")

### **document.getElementsByTagName() method**

In this example, we going to count total number of paragraphs used in the document. To do this, we have called the document.getElementsByTagName("p") method that returns the total paragraphs.

**<script** type="text/javascript"**>**

function countpara(){

var totalpara=document.getElementsByTagName("p");

alert("total p tags are: "+totalpara.length);

}

**</script>**

**<p>**This is a pragraph**</p>**

**<p>**Here we are going to count total number of paragraphs by getElementByTagName() method.**</p>**

**<p>**Let's see the simple example**</p>**

**<button** onclick="countpara()"**>**count paragraph**</button>**

we going to count total number of h2 and h3 tags used in the document.

**<script** type="text/javascript"**>**

function counth2(){

var totalh2=document.getElementsByTagName("h2");

alert("total h2 tags are: "+totalh2.length);

}

function counth3(){

var totalh3=document.getElementsByTagName("h3");

alert("total h3 tags are: "+totalh3.length);

}

**</script>**

**<h2>**This is h2 tag**</h2>**

**<h2>**This is h2 tag**</h2>**

**<h3>**This is h3 tag**</h3>**

**<h3>**This is h3 tag**</h3>**

**<h3>**This is h3 tag**</h3>**

**<button** onclick="counth2()"**>**count h2**</button>**

**<button** onclick="counth3()"**>**count h3**</button>**

# Javascript - innerHTML

The **innerHTML** property can be used to write the dynamic html on the html document.

It is used mostly in the web pages to generate the dynamic html such as registration form, comment form, links etc.

### **Example of innerHTML property**

In this example, we are going to create the html form when user clicks on the button.

in this example, we are dynamically writing the html form inside the div name having the id mylocation. We are identifing this position by calling the document.getElementById() method.

**<script** type="text/javascript" **>**

function showcommentform() {

var data="Name:**<input** type='text' name='name'**><br>**Comment:**<br><textarea** rows='5' cols='80'**></textarea>**

**<br><input** type='submit' value='Post Comment'**>**";

document.getElementById('mylocation').innerHTML=data;

}

**</script>**

**<form** name="myForm"**>**

**<input** type="button" value="comment" onclick="showcommentform()"**>**

**<div** id="mylocation"**></div>**

**</form>**

### **Show/Hide Comment Form Example using innerHTML**

<!DOCTYPE html**>**

**<html>**

**<head>**

**<title>**First JS**</title>**

**<script>**

var flag=true;

function commentform(){

var cform="**<form** action='Comment'**>**Enter Name:**<br><input** type='text' name='name'**/><br/>**

Enter Email:**<br><input** type='email' name='email'**/><br>**Enter Comment:**<br/>**

**<textarea** rows='5' cols='70'**></textarea><br><input** type='submit' value='Post Comment'**/></form>**";

if(flag){

document.getElementById("mylocation").innerHTML=cform;

flag=false;

}else{

document.getElementById("mylocation").innerHTML="";

flag=true;

}

}

**</script>**

**</head>**

**<body>**

**<button** onclick="commentform()"**>**Comment**</button>**

**<div** id="mylocation"**></div>**

**</body>**

**</html>**

# Javascript - innerText

The **innerText** property can be used to write the dynamic text on the html document. Here, text will not be interpreted as html text but a normal text.

It is used mostly in the web pages to generate the dynamic content such as writing the validation message, password strength etc.

## **JavascriptinnerText Example**

In this example, we are going to display the password strength when releases the key after press.

**<script** type="text/javascript" **>**

function validate() {

var msg;

if(document.myForm.userPass.value.length**>**5){

msg="good";

}

else{

msg="poor";

}

document.getElementById('mylocation').innerText=msg;

 }

**</script>**

**<form** name="myForm"**>**

**<input** type="password" value="" name="userPass" onkeyup="validate()"**>**

Strength:**<span** id="mylocation"**>**no strength**</span>**

**</form>**

# JavaScript Form Validation

It is important to validate the form submitted by the user because it can have inappropriate values. So, validation is must to authenticate user.

JavaScript provides facility to validate the form on the client-side so data processing will be faster than server-side validation. Most of the web developers prefer JavaScript form validation.

Through JavaScript, we can validate name, password, email, date, mobile numbers and more fields.

## **JavaScript Form Validation Example**

In this example, we are going to validate the name and password. The name can’t be empty and password can’t be less than 6 characters long.

**<script>**

function validateform(){

var name=document.myform.name.value;

var password=document.myform.password.value;

if (name==null || name==""){

  alert("Name can't be blank");

  return false;

}else if(password.length**<6**){

  alert("Password must be at least 6 characters long.");

  return false;

  }

}

**</script>**

**<body>**

**<form** name="myform" method="post" action="" onsubmit="return validateform()" **>**

Name: **<input** type="text" name="name"**><br/>**

Password: **<input** type="password" name="password"**><br/>**

**<input** type="submit" value="register"**>**

**</form>**

## **JavaScript Retype Password Validation**

**<script** type="text/javascript"**>**

function matchpass(){

var firstpassword=document.f1.password.value;

var secondpassword=document.f1.password2.value;

if(firstpassword==secondpassword){

return true;

}

else{

alert("password must be same!");

return false;

}

}

**</script>**

**<form** name="f1" action="register.jsp" onsubmit="return matchpass()"**>**

Password:**<input** type="password" name="password" **/><br/>**

Re-enter Password:**<input** type="password" name="password2"**/><br/>**

**<input** type="submit"**>**

**</form>**

## **JavaScript validation with image**

Let’s see an interactive JavaScript form validation example that displays correct and incorrect image if input is correct or incorrect.

**<script>**

function validate(){

var name=document.f1.name.value;

var password=document.f1.password.value;

var status=false;

if(name.length**<1**){

document.getElementById("nameloc").innerHTML=

" <img src='unchecked.gif'/> Please enter your name";

status=false;

}else{

document.getElementById("nameloc").innerHTML=" <img src='checked.gif'/>";

status=true;

}

if(password.length**<6**){

document.getElementById("passwordloc").innerHTML=

" <img src='unchecked.gif'/> Password must be at least 6 char long";

status=false;

}else{

document.getElementById("passwordloc").innerHTML=" <img src='checked.gif'/>";

}

return status;

}

**</script>**

**<form** name="f1" action="#" onsubmit="return validate()"**>**

**<table>**

**<tr><td>**Enter Name:**</td><td><input** type="text" name="name"**/>**

**<span** id="nameloc"**></span></td></tr>**

**<tr><td>**Enter Password:**</td><td><input** type="password" name="password"**/>**

**<span** id="passwordloc"**></span></td></tr>**

**<tr><td** colspan="2"**><input** type="submit" value="register"**/></td></tr>**

**</table>**

**</form>**